

NOVEMBER/DECEMBER 2025

**23UEEL53A — CELLULAR MOBILE
COMMUNICATION (ELECTIVE V)**

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. Define GSM.
2. Write two applications of 3G systems.
3. What is handoff?
4. Write two functions of roaming management.
5. What is international roaming?
6. List two network signalling functions.
7. Define WAP.
8. Expand WML.
9. What is Wireless Local Loop (WLL)?
10. How Wi-Fi works?



SECTION B — ($5 \times 5 = 25$ marks)

Answer ALL questions.

11. (a) Explain the architecture of GSM briefly.

Or

- (b) Write a short note on cordless telephony.

12. (a) Explicate 7-cell structure with a neat diagram.

Or

- (b) Compare ACI and CCI interference.

13. (a) Explain the role of administration and operation in GSM.

Or

- (b) Express the importance of mobility management.

14. (a) Describe wireless telephony applications.

Or

- (b) Give explanation of the concept of datagram.

15. (a) Write short note on WLL.

Or

- (b) Explain briefly Bluetooth technology.

SECTION C — ($3 \times 10 = 30$ marks)

Answer any THREE questions.

16. Explain the working of 3G wireless systems with block diagram.
17. Describe channel assignment techniques with diagrams.
18. Clarify international roaming and its challenges.
19. Explain in detail WAP protocol stack with diagram.
20. Describe the evolution of mobile generations from 1G to 5G.